02 IN-DEPTH **REPORTS**

Entrepreneurship

Economic data that all entrepreneurs should know about their business

IDEATION

MODELING

PLANNING

EXECUTION

Ajuntament de Barcelona

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PLANNING

01
"Houston, we have a problem", or two: a company's financial problems

From an economic and financial point of view, companies can have two types of problems that can cause them to close down, especially during their first year of existence.

These two problems, which do not always go hand in hand, are the lack of economic viability and the lack of financial viability.

This lack of viability occurs when a project is not profitable; i.e. when its expenditure is permanently higher than its income. This happens when the current net value of the project has a negative rate of return. This means that the company has losses, which is a difficult situation to maintain in the medium term.

The financial viability of a project refers to the availability of the funds needed to carry it out. For example, a project is said to be financially viable if it either has, or has access to, the money needed to carry it out.

02
"Better safe than sorry"

There are two economic and financial forecasting tools that all entrepreneurs should master: the profit and loss forecast, with an analysis of the profitability threshold or break-even point, and the cashflow forecast. These two tools can be used to forecast and prevent the two types of problems mentioned in section 1.

Before going into an in-depth explanation of these two tools, it is worth noting that they are based on a predictive analysis. In other words, the analysis is based on estimated rather than real data. Just like any estimate, there is a margin of error, which will be greater or smaller based on the data collection effort made. In the case of a business project that is yet to start, data is collected by drawing up a business plan.

PROFIT AND LOSS FORECAST AND PROFITABILITY THRESHOLD

The profit and loss forecast can be used to analyse in advance, based on the planned sales estimate, whether the company will be viable.

The profitability threshold makes it possible to ask the question in reverse, calculating the minimum turnover you will need in order for the business to become viable.

The following table shows a viability analysis for the same business based on two possible sales estimates.

PROFIT AND LOSS STATEMENT	Case 1: NOT VIABLE		Case 2: VIABLE	
	u.m.	% of sales	u.m.	% of sales
Sales or income (S)	120.000	100%	160.000	100%
Variable expenditure (VE)	-48.000	-40%	-64.000	-40%
Variable margin (VM)	72.000	60%	96.000	60%
Fixed expenditure (FE)	-85.000		-85.000	
Profit or loss (Pro.)	**-13.000**	**-11%**	**11.000**	**7%**

In case 1, the business is not viable: there is a loss of €13,000. In case 2, based on a different sales estimate, the business is viable because there is a profit of €11,000.

When carrying out this analysis, a distinction should be made between the business' fixed and variable expenditure.

Variable expenditure is the expenditure that varies in proportion to the sales made. For example, for a business that sells clothes, the purchase of those clothes will be a variable expense because, the more it sells, the more it needs to buy.

Fixed costs, on the other hand, are those that do not vary with the amount of sales for a given productive structure. For example, the amount of rent payable will be the same regardless of sales volume.

In this case, you can see whether or not the business is viable based on its turnover. You could now calculate the turnover from which it could start making a profit. This is known as the profitability threshold (PT) or break-even point (BEP), and it involves applying a simple formula under which fixed expenditure is divided by variable margin.[1]

1_ Sales at the profitability threshold (PT) should result in 0 profit.
Break-even point = value, where Pro. = 0 → BEP = FE/VM = 85,000 / 0.6 = 141,666.67
Pro. = BEP-VE-FE = 0 → VE = BEP*(1-VM)
Pro. = BEP-(BEP*(1-VM))-FE = 0
BEP-BEP+BEP*VM-FE = 0 → BEP*VM-FE = 0
EP= FC/VM

If you draw up the profit and loss statement for this forecast, you can see that the profit is indeed 0. BEP = FE/VM = 85,000 / 0.6 = 141,666.67

ROFIT AND LOSS STATEMENT	Case 1: NOT VIABLE		Case 3: BREAK-EVEN POINT	
	u.m.	% of sales	u.m.	% of sales
Sales or income (S)	120.000	100%	141.667	100%
Variable expenditure (VE)	-48.000	-40%	-56.667	-40%
Break-even point (BEP)	72.000	60%	85.000	60%
Fixed expenditure (FE)	-85.000		-85.000	
Profit or loss (Pro.)	**-13.000**	**-11%**	**0**	**0%**

The profitability threshold is defined as the sales volume at which a company has a profit of 0, at which point it becomes viable. It can also be defined as the sales volume at which both total variable expenditure and total fixed expenditure are covered.[1]

In summary, an entrepreneur must be able to estimate the fixed expenditure and variable margins they are going to work with and, on that basis, know whether they are going to make a profit or lose money based on sales forecasts.

THE CASHFLOW FORECAST

It is just as important to know if a business or business project is viable as it is to know how much money you will need to start up a business and keep it going.

In relation to this, the cashflow plan is the tool that can warn you about potential future liquidity problems in advance.

Drawing up a cashflow plan involves establishing payments and receipts at the planned times in order to calculate the cash balance – i.e. the money surplus or deficit – at any given time.

1_ If you wanted to know the sales volume required to achieve a specific profit, you would have to apply the above formula adding profit to fixed expenditure. S = (FE+Pro.) / VM. This can be very helpful when it comes to setting sales targets.

The cashflow forecast is a short-term forecast. An annual forecast is of little use: you should draw one up on a monthly or even weekly basis.

CASHFLOW PLAN	Jan 07	Feb 07	Mar 07	Apr 07	May 07	June 07
Receipts	0	200	250	400	500	600
Payments	-700	-300	-300	-300	-300	-300
Difference	**-700**	**-100**	**-50**	**100**	**200**	**300**
Cash balance (before financing)	-700	-800	-850 ▲ **Maximum funding needs**	-750	-550	-250
Finance	900					
Final cash balance	**200**	**100**	**50**	**150**	**350**	**650**

All money entries appear under receipts except for financing, which will be added at the end to calculate how much money is needed.

The amount of receipts in the first month is 0 (a common occurrence in new businesses). Payments must include: operating payments, investment payments (this amount is therefore higher in the first month) and financial payments (repayments of finance and interest payments).

The funding needs to open the business, which are equal to the aggregate cash balance before financing, are 700. But watch out! As is usual in start-ups, during the first few months payments are higher than receipts. You will therefore need to increase financing to 850, which is the maximum amount of cash expected to be required in the short term.

A proper use of a cashflow plan can help you anticipate financial needs. If, in addition, these resources have to come from external funding, it can help you consider the most appropriate funding strategy (e.g. a loan or a credit or discount facility) in plenty of time, as well as opening up new negotiation options.

Another tool that is similar to the cashflow plan and will enable you to calculate the financing forecast is the investment and financing plan, although in this case the initial investment is estimated, and a provision of funds (funding needs) is calculated, for initial and future expenditure.

03
Conclusions

To conclude and summarise, these are the steps that should be taken by an entrepreneur to carry out a proper economic and financial analysis:

- → The economic data must be correctly estimated. This will depend on how carefully you gather information and, in the case of new business projects, on the reliability of the data included in the business plan.
- → In order to carry out the short-term analysis, you must know how much money you need not only to start the business but also to keep it running and, in addition, to deal with any later liquidity issues that may arise. This is why it is very useful to have a cashflow plan.
- → In the medium-term analysis, you must analyse whether the business is viable. To do this, it is important that you use the profit and loss forecast or calculate your profitability threshold. If the business is not viable, you must change the strategy or give up on starting up the business.
- → Finally and by way of conclusion, when carrying out the longer-term analysis, you should also estimate how long it will take to recoup your investment or what return you will obtain from it so you can compare it with other investment options. It is useful for this purpose to calculate the rate of return, which is simply the result of dividing the investment by the cashflow generated by the company.

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